

APPENDIX C

LOGPLOT SONIC BORING LOGS

Sediment Core Log

PDS-1

Sheet 1 of 1

Project: CQAP Modification 1 - Jorgensen Forge EAA	Estimated Mudline Elevation (feet, MLLW): -5.4	Method/Core Diameter: Sonic / 6"
Project #: 080224-01.02	Tidal Elevation (MLLW): 9.1	Penetration Depth (ft): 15.0
Client: Earle M. Jorgensen Corporation	Water Depth (ft): 14.5	Field Recovery Length (ft): 11.5
Contractor: Cascade Drilling	Northing: 195624.55 Easting: 1275828.42	Collection Date: 2/10/2016
Location: Tukwila, WA	Horizontal Datum: NAD 83 WA State Plane North, feet	Process Date: 2/10/2016
Vessel: Versatile Workhorse Barge	Vertical Datum: MLLW	Logged By: EM

Recovered Depth ft cm	Sample	Chemical Analysis	Sediment Description Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	Recovered Interval
0			0-2.2 ft: WELL-GRADED GRAVEL WITH SAND (GW), moist, medium dense to dense, multicolored, 85% fine to coarse gravel, 15% coarse sand, trace fines. [BACKFILL]	
20				
40				
60			2.2 - 2.5 ft: Grades to unit described at 2.5 ft.	
80				
100	JF-PDS-1-0-1ft-160210	PCBs, Metals, TS/TOC, Grain Size	POST-DREDGE SURFACE 2.5 - 2.9 ft: SILTY SAND (SM), wet, loose, dark gray, 80% medium sand, 20% fines. Trace organics (1 stick).	
120	JF-PDS-1-1-2ft-160210	PCBs, Metals, TS/TOC, Grain Size	2.9 - 11.5 ft: POORLY GRADED SAND (SP), Moist, loose to medium dense, dark gray, 100% medium sand. Sand grains are dark gray, white, gray, red.	
140	JF-PDS-1-2-3ft-160210	PCBs, Metals, TS/TOC, Grain Size		
160				
180				
200				
220				
240				
260				
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320				
340				
360			End of core @11.5 ft.	
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Sediment Core Log

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Project: CQAP Modification 1 - Jorgensen Forge EAA	Estimated Mudline Elevation (feet, MLLW): -8.1	Method/Core Diameter: Sonic / 6"
Project #: 080224-01.02	Tidal Elevation (MLLW): 12.9	Penetration Depth (ft): 15.0
Client: Earle M. Jorgensen Corporation	Water Depth (ft): 4.8	Field Recovery Length (ft): 11.3
Contractor: Cascade Drilling	Northing: 195511.49 Easting: 1275851.77	Collection Date: 2/10/2016
Location: Tukwila, WA	Horizontal Datum: NAD 83 WA State Plane North, feet	Process Date: 2/10/2016
Vessel: Versatile Workhorse Barge	Vertical Datum: MLLW	Logged By: EM

Recovered Depth ft cm	Sample	Chemical Analysis	Sediment Description Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	Recovered Interval
0			0 - 4.2 ft: WELL-GRADED GRAVEL WITH SAND (GW), moist, medium dense, multicolored/gray, 75% fine to coarse gravel, 20% coarse sand, 5% fines. [BACKFILL]	
1			@1.7 ft: grades to 80% fine to coarse gravel, 20% coarse sand, trace fines.	
2			@3.6 ft: grades to unit described at 4.2 ft.	
3				
4				
5	JF-PDS-2-0-1ft-160210	PCBs, Metals, TS/TOC, Grain Size	POST-DREDGE SURFACE 4.2 - 8.2 ft: POORLY GRADED SAND (SP), moist, medium dense, dark gray, 100% medium sand. Sand grains are dark gray, white, orange, red.	
6	JF-PDS-2-1-2ft-160210	PCBs, Metals, TS/TOC, Grain Size		
7	JF-PDS-2-2-3ft-160210	Archive		
8				
9			8.2 - 9.4 ft: SILTY SAND (SM), moist, medium dense, dark gray, 65% fine to medium sand, 35% high plasticity fines.	
10			9.4 - 11.3 ft: CLAYEY SILT (ML/CL), moist, medium stiff, dark gray, 95% medium-plasticity fines, 5% fine sand.	
11				
12			End of core @11.3 ft.	
13				
14				
15				

Sediment Core Log

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Project: CQAP Modification 1 - Jorgensen Forge EAA	Estimated Mudline Elevation (feet, MLLW): -6.6	Method/Core Diameter: Sonic / 6"
Project #: 080224-01.02	Tidal Elevation (MLLW): 6.6	Penetration Depth (ft): 15.0
Client: Earle M. Jorgensen Corporation	Water Depth (ft): 13.2	Field Recovery Length (ft): 8.6
Contractor: Cascade Drilling	Northing: 195464.87 Easting: 1275896.53	Collection Date: 2/11/2016
Location: Tukwila, WA	Horizontal Datum: NAD 83 WA State Plane North, feet	Process Date: 2/11/2016
Vessel: Versatile Workhorse Barge	Vertical Datum: MLLW	Logged By: EM

Recovered Depth ft cm	Sample	Chemical Analysis	Sediment Description Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	Recovered Interval
0			0 - 0.7 ft: POORLY GRADED GRAVEL WITH COBBLES (GP), moist, loose, multicolored, 50% cobble, 50% coarse gravel, trace fines. Cobble is subangular up to 4 inches. Gravel is subrounded up to 2 inches. [BACKFILL]	
1			0.7 - 4.2 ft: WELL-GRADED GRAVEL WITH SAND (GW), moist, medium dense, multicolored and brown/gray, 75% fine to coarse gravel, 20% coarse sand, 5% fines. [BACKFILL]	
2			@4.2 ft: Grades to unit described at 4.5 ft.	
3				
4				
5	JF-PDS-3-0-1ft-160211	PCBs, Metals, TS/TOC, Grain Size	POST-DREDGE SURFACE 4.5 - 8.6 ft: POORLY GRADED SAND (SP), moist, loose to medium dense, dark gray, 100% medium sand. Occasional pockets of silty clay, moist, stiff, grayish brown.	
6	JF-PDS-3-1-2ft-160211	PCBs, Metals, TS/TOC, Grain Size		
7	JF-PDS-3-2-3ft-160211	Archive		
8				
9			End of core @8.6 ft.	
10				
11				
12				
13				
14				
15				

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Project: CQAP Modification 1 - Jorgensen Forge EAA	Estimated Mudline Elevation (feet, MLLW): -21.3	Method/Core Diameter: Sonic / 6"
Project #: 080224-01.02	Tidal Elevation (MLLW): 8.8	Penetration Depth (ft): 10.0
Client: Earle M. Jorgensen Corporation	Water Depth (ft): 30.1	Field Recovery Length (ft): 11.0
Contractor: Cascade Drilling	Northing: 195311.36 Easting: 1275864.72	Collection Date: 2/10/2016
Location: Tukwila, WA	Horizontal Datum: NAD 83 WA State Plane North, feet	Process Date: 2/10/2016
Vessel: Versatile Workhorse Barge	Vertical Datum: MLLW	Logged By: EM

Recovered Depth ft cm	Sample	Chemical Analysis	Sediment Description Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	Recovered Interval
0			0 - 0.3 ft: SILT WITH SAND (ML), wet, soft, dark gray, 80% fines, 20% fine sand.	
20			0.3 - 1.9 ft: WELL GRADED GRAVEL WITH SILT AND SAND (GW-GM), moist, loose, multicolored/dark gray, 70% fine to coarse gravel, 20% medium to coarse sand, 10% fines. Trace organics (wood fragments, sticks). [BACKFILL]	
40			@1.5 ft: grades to unit described at 1.9 ft.	
60			1.9 - 2.9 ft: POORLY GRADED SAND (SP), moist, loose, dark gray, 85% medium sand, 10% coarse gravel, 5% fines. Trace organics (wood fragments, stick). Grades to unit described at 2.9 ft.	
80				
100	JF-PDS-4-0-1ft-160210	PCBs, Metals, TS/TOC, Grain Size	POST-DREDGE SURFACE	
120	JF-PDS-4-1-2ft-160210	PCBs, Metals, TS/TOC, Grain Size	2.9 - 11.0 ft: POORLY GRADED SAND (SP), moist, medium dense, dark gray, 100% medium sand, trace fines. Trace organics (fibers).	
140				
160	JF-PDS-4-2-3ft-160210	Archive		
180				
200				
220				
240				
260				
280				
300			9.5 - 11 ft: occasional pockets of fine sand with silt.	
320				
340				
360			End of core @11.0 ft.	
380				
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Project: CQAP Modification 1 - Jorgensen Forge EAA	Estimated Mudline Elevation (feet, MLLW): -1.9	Method/Core Diameter: Sonic / 6"
Project #: 080224-01.02	Tidal Elevation (MLLW): 6.3	Penetration Depth (ft): 15.0
Client: Earle M. Jorgensen Corporation	Water Depth (ft): 8.2	Field Recovery Length (ft): 0-5ft: See Note 2, 5-15ft: 15.2
Contractor: Cascade Drilling	Northing: 195364.06 Easting: 1275939.65	Collection Date: 2/11/2016
Location: Tukwila, WA	Horizontal Datum: NAD 83 WA State Plane North, feet	Process Date: 2/11/2016
Vessel: Versatile Workhorse Barge	Vertical Datum: MLLW	Logged By: EM

Recovered Depth ft cm	Sample	Chemical Analysis	Sediment Description Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	Recovered Interval
0			0 - 2 ft: RIPRAP/COBBLE. Moist, loose, gray, 100% riprap and cobble. Subangular up to 0.7 ft. [BACKFILL] (See Note 2)	
20				
40				
60				
80			2.0 - 5.0 ft: WELL-GRADED GRAVEL (GW). Moist, medium dense, multicolored, 100% fine to coarse gravel. Gravel is subrounded up to 3 inches. [BACKFILL] (See Note 2)	
100				
120				
140				
160			5.0 - 6.0 ft: POORLY GRADED GRAVEL WITH COBBLE (GP), moist, loose, multicolored, 50% coarse gravel, 50% cobble. Gravel is subrounded up to 2 inches. Cobble is subangular up to 4 inches. [BACKFILL]	
180				
200			6.0 - 8.4 ft: WELL GRADED GRAVEL WITH SAND (GW), Moist, medium dense, multicolored, 80% fine to coarse gravel, 20% coarse sand, trace fines. [BACKFILL]	
220				
240			8.1 - 8.4 ft: grades to unit described at 8.4 ft.	
260				
280	JF-PDS-5-0-1ft-160211	PCBs, Metals, TS/TOC, Grain Size	POST-DREDGE SURFACE 8.4 - 9.0 ft: Stratified layers of CLAYEY SILT (ML/CL) and SILTY SAND (SM). CL/ML: moist, soft, dark gray, 100% fines. Fines have medium plasticity. SM: moist, medium dense, dark gray, 80% fine sand, 20% fines.	
300	JF-PDS-5-1-2ft-160211	PCBs, Metals, TS/TOC, Grain Size		
320	JF-PDS-5-2-3ft-160211	PCBs, Metals, TS/TOC, Grain Size	9.0 - 14.8 ft: POORLY GRADED SAND (SP), moist, medium dense, dark gray, 100% medium sand.	
340				
360				
380				
400				
420				
440			@14.2 ft: one 6 inch wood fragment (cedar-like).	
460			14.8 - 15.2 ft: SILTY SAND (SM), moist, dense, gray, 80% fine sand, 20% fines.	
480			End of core @15.2 ft.	

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Project: CQAP Modification 1 - Jorgensen Forge EAA	Estimated Mudline Elevation (feet, MLLW): -9.5	Method/Core Diameter: Sonic / 6"
Project #: 080224-01.02	Tidal Elevation (MLLW): 10.8	Penetration Depth (ft): 15.0
Client: Earle M. Jorgensen Corporation	Water Depth (ft): 20.3	Field Recovery Length (ft): 10.5
Contractor: Cascade Drilling	Northing: 195180.23 Easting: 1275927.38	Collection Date: 2/9/2016
Location: Tukwila, WA	Horizontal Datum: NAD 83 WA State Plane North, feet	Process Date: 2/9/2016
Vessel: Versatile Workhorse Barge	Vertical Datum: MLLW	Logged By: EM

Recovered Depth ft cm	Sample	Chemical Analysis	Sediment Description Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	Recovered Interval
0			0 - 0.5 ft: POORLY GRADED GRAVEL (GP), moist, loose, multicolored, 100% coarse gravel, trace fines. Gravel is subrounded up to 2 inches. [BACKFILL]	
20			0.5 - 2.2 ft: WELL GRADED GRAVEL WITH SAND (GW), moist, loose, multicolored, 85% fine to coarse gravel, 15% coarse sand, trace fines. Gravel is subrounded up to 2 inches. [BACKFILL]	
40			2.2 - 4.0 ft: WELL GRADED GRAVEL WITH SILT AND SAND (GW-GM), moist, medium dense, gray/brown, 70% fine to coarse gravel, 20% coarse sand, 10% fines. Gravel is subrounded up to 2 inches. [BACKFILL]	
60			@3.6 ft: grades to unit described at 4.0 ft.	
80			4.2 - 5.2 ft: SILTY SAND WITH GRAVEL (SM), Moist, medium dense, dark gray, 60% medium sand, 25% fine to coarse gravel, 15% fines. Grades to unit described at 5.2 ft.	
100			POST-DREDGE SURFACE	
120	JF-PDS-6-0-1ft-160209	PCBs, Metals, TS/TOC, Grain Size	5.2 - 10.5 ft: POORLY GRADED SAND (SP), moist, medium dense, dark gray, 100% medium sand, trace fines. Sand grains are dark gray, red, white.	
140	JF-PDS-6-1-2ft-160209	PCBs, Metals, TS/TOC, Grain Size	@7.0 ft: grades to 100% medium sand.	
160	JF-PDS-6-2-3ft-160209	Archive	@9.7 ft: grades to 100% fine sand, trace fines.	
180			End of core @10.5 ft.	
200				
220				
240				
260				
280				
300				
320				
340				
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Project: CQAP Modification 1 - Jorgensen Forge EAA	Estimated Mudline Elevation (feet, MLLW): 5.5	Method/Core Diameter: Sonic / 6"
Project #: 080224-01.02	Tidal Elevation (MLLW): 13.3	Penetration Depth (ft): 25.0
Client: Earle M. Jorgensen Corporation	Water Depth (ft): 7.8	Field Recovery Length (ft): 21.8 (See Note 2)
Contractor: Cascade Drilling	Northing: 195786.90 Easting: 1275766.59	Collection Date: 2/12/2016
Location: Tukwila, WA	Horizontal Datum: NAD 83 WA State Plane North, feet	Process Date: 2/12/2016
Vessel: Versatile Workhorse Barge	Vertical Datum: MLLW	Logged By: EM

Recovered Depth ft cm	Sample	Chemical Analysis	Sediment Description Samples and Descriptions are in Recovered Depths. Classification Scheme: USCS	Recovered Interval
0			0 - 1.5 ft: POORLY GRADED GRAVEL WITH COBBLE (GP), moist, loose, multicolored, 50% coarse gravel, 50% cobble, trace fines. Cobble is subangular up to 6 inches. Gravel is subrounded up to 2 inches. [BACKFILL]	
1				
2			1.5 - 5.5 ft: POORLY GRADED GRAVEL (GP), moist, loose, multicolored, 100% coarse gravel, trace fines. Gravel is subrounded up to 2.5 inches. [BACKFILL]	
3				
4				
5				
6			5.5 - 12.4 ft: WELL GRADED GRAVEL WITH SAND (GW), moist, medium dense, multicolored and gray/brown, 75% fine to coarse gravel, 20% coarse sand, 5% fines. [BACKFILL]	
7				
8				
9				
10				
11				
12			@12.2 ft: grades to unit described at 12.4 ft.	
13	JF-PDS-7-0-1ft-160212	PCBs, Metals, TS/TOC, Grain Size	POST-DREDGE SURFACE	
14	JF-PDS-7-1-2ft-160212	PCBs, Metals, TS/TOC, Grain Size	12.4 - 21.8 ft: POORLY GRADED SAND (SP), moist, medium dense, dark gray, 100% medium sand, trace fines.	
15	JF-PDS-7-2-3ft-160212	PCBs, Metals, TS/TOC, Grain Size	@15.0 ft: grades to 100% medium sand.	
16				
17				
18				
19				
20				
21			@20.1 ft: grades to 95% fine sand, 5% fines. Trace organics (stick).	
22				
23			End of core @21.8 ft.	
24				
25				

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